WORLD BANK NEWS

Volume XIV, No. 30 August 10, 1995

Water Woes

Water Shortages Pose a Growing Threat Around the World

Many of the world's people face a future without adequate water unless water is used more efficiently and proper investments are made in providing—and protecting—the resource, according to the World Bank. Under such pressure as population growth, pollution and the rising cost of new supplies, providing clean water poses a growing economic and health challenge, especially to developing countries.

Some 80 countries with 40 percent of the world's population already experience water shortages that threaten their agriculture, industry and health. A billion people lack access to clean drinking water in the developing world and 1.7 billion do not have adequate sanitation facilities. According to UN estimates, dirty water causes 80 percent of the disease in developing countries and kills 10 million people a year.

A lack of clean water and proper sanitation systems also can trigger economic disaster. Peru's recent cholera epidemic—caused by contaminated water—resulted in an estimated $1 billion in lost revenue from agricultural exports and tourism within just the first 10 weeks of the crisis. That is more than three times the amount Peru invested in water supply and sanitation services during the 1980s.

"Many of the wars of this century were about oil, but wars of the next century will be over water," says Ismail Serageldin, the Bank's vice president for Environmentally Sustainable Development.

The Bank, as the largest international funder of water projects, has loaned more than $36 billion for investments in irrigation, water supply, sanitation, flood control and hydropower since 1950. Since the 1980s, international aid has helped to bring access to good water to an additional 1.6

See **WATER**, *page 2*

Curt Carnemark

Precious resource.

INSIDE ...

The Bank and Nepal look for alternative power supplies, page 3 ● IFC backs Argentine infrastructure, page 4 ● Bank Vice President Russell Cheetham on China, page 6 ● Morocco strengthens its financial sector, page 8

Development agenda, page 5

■

World Bank roundup, page 7

■

Press advisories, page 8

Population, Pollution, Costs Squeezing World Water Supplies

Curt Carnemark

WATER, *from page 1*

billion people in the developing world, and the number of urban people with access to an adequate water supply increased by about 80 percent. The number of urban people with adequate sanitation facilities increased by about 50 percent to 900 million.

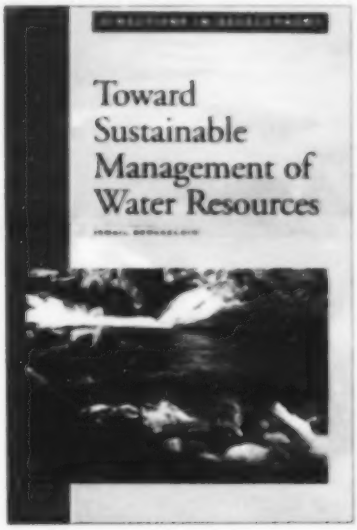
But the needs remain great. The Bank estimates that $600 billion must be spent over the next 10 years on water-related investments around the world. Most of that total will be raised by the countries themselves, but $60 billion must come from abroad for the developing world, of which the Bank will lend $30 to 40 billion.

The three major trends putting pressure on the earth's water supply are:

- Rapid population growth—especially in urban areas where it could climb from 5.6 billion today to 8 billion in 2025—will bring a greater demand for food and hence for irrigation. At the same time, the demand for water by households and industries, further stimulated by economic growth, is rising.
- The supply of good quality water is being contaminated through pollution originating from domestic wastes, industry, agricultural chemicals and mismanaged land use, effectively decreasing the amount of water available. About 95 percent of the world's sewage is poured straight into rivers and other water flows, where it is joined by growing amounts of industrial waste.
- Engineering and environmental costs of developing new water sources are much higher than those of sources already tapped. For many cities, the cost of water provided by future projects can be two to three times the cost of current supplies, even before environmental costs are factored in.

Many of the countries with limited renewable water resources are in the Middle East, North Africa, Central Asia and sub-Saharan Africa, where populations are growing most rapidly. □

☎For more information *on Water and the World Bank, contact Sarwat Hussain at (202) 473-5690, fax (202) 522-3244.*



The World Bank has just added a report, *Toward Sustainable Management of Water Resources,* to its series of Directions in Development essays. The text was drawn from an address by Ismail Serageldin to a recent congress on water resources in Cairo, Egypt.

The report covers the failure of current policies, the need for a new approach and a framework for improving water resources management, including appropriate incentives and effects on health and the environment. For more information, contact Sarwat Hussain at (202) 473-5690, fax (202) 522-3244.

Water for Agriculture

Water scarcity, not shortage of land, will be the main future constraint of agriculture in developing countries, the Bank says. Agriculture consumes 90 percent of all water used in developing countries. Some 80 percent of all water used each year goes for irrigation, which produces up to 40 percent of world food crops on just 17 percent of all arable land.

Asia's agriculture faces the most severe water problems of any continent. Slightly more than 50 percent of Asian agriculture is irrigated, using more than 40 percent of the entire world's annual consumption of fresh water. Agriculture accounts for 87 percent of China's water consumption. In India, agriculture consumes an estimated 93 percent of all renewable water.

For Africa, where poverty and rising food demand are pushing farmers increasingly into marginal lands, drought-resistant corn varieties will have to be developed as an alternative to typical dryland crops such as sorghum, millet and cassava.

Many countries that are running short of water for agriculture are tempted to tap partly non-renewable underground resources, a self-defeating policy likely to accelerate the process of desertification. Fossil water resources can be depleted as quickly as crude oil reserves.

Effective water-saving efforts can be costly for farmers, both in the labor and capital they must invest. To facilitate these efforts, adequate technology and management practices will be needed, including: drought tolerant crop varieties; better irrigation management practices; and better soil moisture management practices. The World Bank is supporting research to help farmers through the Consultative Group on International Agricultural Research (CGIAR).

Bank, Nepal Seek Alternatives to Power Project

The World Bank and the government of Nepal have agreed to work expeditiously to develop alternative approaches to meeting Nepal's energy needs following a decision by the Bank not to proceed with plans to support the Arun III hydropower project.

The agreement follows discussions between World Bank President James Wolfensohn and Man Mohan Adhikari, the prime minister of Nepal. Wolfensohn assured the prime minister that the Bank attaches the highest priority to helping Nepal in devising and implementing an alternative strategy for meeting its needs for electric power. The prime minister, in the changed situation, has requested the Bank's financial support for alternative approaches and Wolfensohn indicated that, subject to proposals meeting the Bank's normal lending criteria, the institution would be prepared to provide such assistance. As a result, talks have already begun between the World Bank and the government on specific proposals to take advantage of alternatives available for meeting Nepal's power needs.

The World Bank had considered supporting the Arun III project through a $175 million credit from the International Development Association. Wolfensohn advised the prime minister that, following a comprehensive review of the project and the subsequent recommendations of senior staff, he had concluded that the Bank could not support the project.

"Large complex projects require institutions like the World Bank to weigh the benefits against the risks and then decide on their feasibility. The judgment made over a year ago in the case of Arun came out in favor of the project after substantial internal debate. Irrespective of whether that was the right or wrong decision at the time, I

See **NEPAL**, *page 4*

Energy Crucial to Economic Growth, Prosperity in Nepal

NEPAL, *from page 3*

concluded that under today's circumstances and with the information at my disposal, the risks to Nepal were too great to justify proceeding with the project," Wolfensohn said.

"The public debate on this controversial project was valuable in that it served to heighten the concerns of Bank staff about the risks faced by the project. It also led to a review by the World Bank's Inspection Panel of environmental and social aspects of the project with the result that measures to address these concerns were strengthened. Although this project will not go ahead, the Panel's work remains relevant to the Bank's operations in general and to future investments in Nepal's power sector in particular," the World Bank president added.

While the Bank's review as well as the findings of the Inspection Panel confirmed that the environmental and social mitigation actions that were currently stipulated for the proposed project were satisfactory, Wolfensohn's decision to advise the government of Nepal that the Bank could not move ahead with support for the project was based on three main considerations:

1) The Bank had always recognized the demands that a project of this size and complexity would place on a small country like Nepal. Since the initial appraisal, the Bank had established increasingly rigorous standards for the implementation of the project, and these reinforced initial concerns about the burdens being placed on the government. The government recognizes these constraints and had agreed to collaborate with capacity-building efforts recommended by the Bank's management in 1995. However, the limited capacity of institutions in Nepal to implement the long list of actions that would have to be taken to ensure success means that it could have taken up to five years longer than originally anticipated for this highly complex project to be completed. Demanding tasks relating to the operations and financial management of Nepal's power utility, and the need to implement effectively the social and environmental actions highlighted by the Inspection Panel, would have imposed requirements, which the Bank now judges to be beyond what Nepal could realistically have achieved at present.

2) While there is support for Arun III, both among all Nepal's political parties and from most of the residents of the valley, the government would still have had to implement a number of measures, such as adjusting tariffs and prioritizing expenditures, and sustain them over the next few years to ensure that the project did not crowd out priority social expenditures. While not questioning the government's commitment to take these steps, the Bank recognized the difficulties inherent in developing widespread popular support and understanding of such measures.

3) In addition to the financing from the World Bank, the project had always depended on funds being provided from several other sources. Some co-financing partners did not feel they were in a position to commit the necessary funds within the next 12 to 18 months. This extremely difficult financing picture was further complicated by the fact that the estimated cost of the project had increased by $30 to $40 million as a result of delays that have already been incurred. As a result, the Bank felt there was no realistic prospect of firming up the financing plan in the near future.

The president's review reaffirmed the hydropower potential in the Arun valley as a promising option for meeting Nepal's long-term energy needs, subject to improving the capacity to address social and environmental impacts of the likely projects and the creation of a more proactive community development program in the valley.

A team of senior Bank staff is expected to visit Nepal shortly, and the president has instructed the team to give this effort top priority.

"Nepal's growth and efforts to alleviate poverty hinge heavily on the country's ability to generate power. These are the benefits that the Bank had hoped would be generated by Arun. The challenge is to work with the international community to bring alternatives to fruition as quickly as possible. Energy is crucial to Nepal's prosperity," Wolfensohn said. □

☎ For more information *on Nepal and the World Bank, contact Paul Mitchell at (202) 458-1423, fax (202) 477-1245.*

IFC Mobilizes Financing for Argentine Infrastructure

The International Finance Corporation has approved three new investments in water, power and port projects in Argentina, bringing to 10 the number of infrastructure privatization projects in the South American country now receiving support from the IFC, mobilizing a total of $900 million in financing.

The three new projects have obtained a total of $280 million in loans from the IFC, the World Bank Group member that provides equity and loan financing for private sector projects in developing countries.

The water sector project involves a $150 million loan to Aguas Argentinas, which in 1993 was awarded a 30-year concession to run the Buenos Aires water and sewage system. The contract represents the first major privatization of that sector in the developing world.

For the power sector, the IFC has approved a $120 million loan to Edesur, the electric company privatized in 1992 and responsible for the southern half of Buenos Aires.

The IFC also approved a $10 million loan to Terminales Portuarias Argentinas, which operates one of five recently privatized cargo and container terminals in the port of Buenos Aires, the country's largest. Contact Mauricio Perea (202) 473-7997, fax (202) 676-0365. □

DEVELOPMENT AGENDA

Date	Event	Sponsor	Location	Telephone
SEPTEMBER				
6-7	Macedonia Consultative Group	World Bank	Paris	(33-1)4069-3016
17	Status and Prospect of Science and Education in Africa	Third World Academy of Science	Abuja, Nigeria	(202) 473-4128*
22	Europe/East Asia Economic Summit: East Asia: What Will Sustain Growth	World Economic Forum	Singapore	(202) 473-2763*
27	1995 Philippine Economic Summit: Europe/East Asia Economic Summit	Gov't of Philippines/ International Herald Tribune	Manila	(202) 458-0344*
OCTOBER				
4-6	Fourth Annual World Economic Development Congress	World Congress, Inc.	Washington	(617) 270-6204* (fax number)
4-6	Third Annual Conference on Environmentally Sustainable Development	World Bank	Washington	(202) 473-9361*
10-12	Bank/Fund Annual Meetings	World Bank/IMF	Washington	(202) 473-1785*
NOVEMBER				
12-15	Conference on Health Reform Around the Globe	Canadian Society for Int'l Health & Canadian University Consortium for Health in Development	Ottawa	(613) 230-2654

Editor's Note: *Development Agenda* is a feature that alerts journalists to key news events in the field of economic development. Journalists should contact sponsoring agencies for details about each event. Asterisk (*) indicates telephone number is in the U.S.A. All other telephone numbers include country and city codes.

World Bank Profits to IDA, West Bank

The World Bank, which posted $1.35 billion in profits for the 1995 fiscal year, plans to distribute its net income to the International Development Association (IDA), a development trust fund for the West Bank and Gaza and to its own reserves for later disposition.

At a meeting to review the World Bank's 1995 financial results, the Bank's Board of Executive Directors also recommended that the International Bank for Reconstruction and Development (IBRD), the Bank Group's main lending arm, set aside $245 million of its net income to reduce the interest rate charged to borrowers with a good payment record, by 25 basis points. They also agreed to increase the reserves target to 14.25 percent of loans and guarantees for fiscal year 1996 and to allocate $35 million of the 1995 profits to the General Reserve to support this objective.

At the end of each fiscal year, the Board determines how much of the net income to allocate to the General Reserve and how much to use for other purposes. The recommendations of the Executive Directors, which must be approved by the Board of Governors when it meets in October, included transferring $250 million of profits in support of activities of IDA, the Bank affiliate that lends on concessional terms to the poorest countries. Under the proposed measures, $100 million would go to the Debt Reduction Facility for IDA countries and $90 million to the Trust Fund for Gaza, set up in 1993 to provide emergency aid to the Palestinian territories.

The Board has decided to expand the scope of the Fund to include operations in the West Bank. This year's allocation would be a substantial increase over the $50 million initially set aside in October 1993.

The combined disbursements of the IBRD and IDA amounted to $18.5 billion and the Bank's reserves in fiscal 1995 rose to $17.23 billion from $14.81 billion the previous year, increasing the reserves to loans ratio to 14.25 percent from 13.88 percent. Contact Eriko Ishikawa at (202) 473-1795, fax (202) 676-0640. □

VERBATIM

Russell Cheetham, World Bank vice president for East Asia and the Pacific, spoke this week to the East-West Center in Honolulu, Hawaii, on the challenges and opportunities surrounding China's sweeping shift to a more open, market-based economy.

"All of us stand to benefit if China is successful in carrying out its ambitious agenda. Last year, China was the largest single source of incremental world trade growth. Since its imports tend to be in high value-added, technology intensive industries, this new demand creates high paying jobs in the industries of the advanced countries.

In the future, many high-technology, mature industries will find their largest and most rapidly growing markets in China. In electric power, for example, China will next year overtake Japan as the world's second largest network. But China does not yet have the technology to produce the most advanced generators, boilers, transformers and switchgear or cables for transmission. All this equipment must be imported from Japan, the US, Europe, and other technologically advanced countries.

Russell Cheetham

Foreign investors are discovering new markets in China, and last year it recorded the greatest inflow of foreign direct investment anywhere in the world. While much of the early investment was to take advantage of low wage labor to re-export back to their global networks, increasingly, multinational companies are investing in China to serve the rapidly growing domestic market. Just last month the government signed an arrangement with Mercedes to produce mini-vans in China. The incorporation of Hong Kong, if handled well, will contribute to China's development as a regional financial center.

China's exports also help increase the standards of living in the industrialized countries. Often affiliated with Western multinational companies, these exports generally have a lower technological content, and compete at the low end of the product market. To ensure that these exports do not displace low income workers in their own countries, industrial countries will have to redouble their efforts to educate their labor as well as support and retrain displaced workers.

Opportunities from China's success are not limited to profits and jobs. Including China in international environmental treaties can improve the quality of life in our shared "global commons." Witness China's active participation in the 1987 Montreal Protocol to reduce Ozone Depleting Substances. The journal *Science* indicated in its July 1995 issue that Montreal Protocol efforts to reduce chloroflorocarbon (CFC) emissions have now virtually halted the increase in the atmospheric concentration of these gases. Recent predictions are that the level of atmospheric CFCs will peak three to four years earlier than the year 2000. This would not be possible without China's commitment to phase out its CFC production with the help of Montreal Protocol resources.

Finally, improved regional security associated with China's success has enormous benefits to both East and West. Peace means that all countries could devote scarce national savings to productive investments that raise standards of living. Contact Ellen Sullivan at (202) 473-2673, fax (202) 676-0658." "

World Bank Roundup

Albania The IDA has granted Albania a $4 million credit for a pilot project to help the government develop a five-year program to boost employment and small-scale economic activity in urban areas. The project will also help repair basic infrastructure and assist local governments in obtaining the skills they need to promote economic development in the long term. Contact Jan Pakulski at (202) 473-1797, fax (202) 676-0578.

Argentina Argentina has embarked on an ambitious program of structural reforms that include rationalizing health care spending by improving the efficiency of services and strengthening policy making. To support the government's goal of strengthening the viability of the health sector, the World Bank has approved a loan of $101 million. The loan will help Argentina formulate policy reforms, launch a pilot program of independent trust hospitals and disseminate information on reform initiatives. Contact Merrell Tuck at (202) 473-9516, fax (202) 522-3698.

Brazil The International Finance Corporation has signed financing agreements with two Brazilian beverage and packaging companies that will help them expand at home and invest in new plants abroad. The IFC is lending Latasa $26 million for expansion in Brazil and $8.5 million for investments in Chile. The Brahma company is borrowing $35 million and $8.5 million from the IFC for investments in Brazil and Argentina, respectively. Contact Merrell Tuck at (202) 473-9516, fax (202) 522-3698.

Bolivia Agriculture is the primary economic activity for 80 percent of rural families in Bolivia, and the government is attempting to implement its rural development strategy of participatory grassroots projects at a national level. To this end, and to alleviate rural poverty, IDA approved a $15 million credit for a project to strengthen non-government organizations and improve the capacity of municipalities and rural communities to implement development plans and investments. Contact Merrell Tuck at (202) 473-9516, fax (202) 522-3698.

China China's Shanghai-Hangzhou roadway is already congested, and traffic is growing by up to 20 percent a year. A new Bank loan of $260 million will finance about 36 percent of a 130-km, four-lane, access-controlled highway to relieve congestion, improve safety and promote economic development. The project also will develop the institutional capabilities of the highway agencies in the two provinces, and includes construction supervision, a road safety program and staff training. Contact Rachel McColgan-Mohamed at (202) 548-0358, fax (202) 522-3405.

Lebanon The Lebanese government is pursuing the rehabilitation of its public administration as part of an ongoing reconstruction process after 15 years of war and military occupation. To help the government launch the process of administrative reform, the Bank approved a new $20 million loan for a civil service census, general reforms, administration technology, office equipment and program implementation support. Contact Jeannie Yamine at (202) 473-2318, fax (202) 477-7978.

Tanzania In 1991, the government of Tanzania initiated financial sector reforms with IDA support. Now, an additional IDA credit of $10.9 million will complement the proposed Structural Adjustment Credit and finance the technical assistance needed for reforms by supporting the restructuring, privatization and downsizing of three banks, including the Bank of Tanzania. It will also strengthen financial infrastructure and develop capital markets. Contact Eric Chinje at (202) 473-4467, fax (202) 473-7917.

Building Business in Morocco

Small businesses and investors in Morocco will soon have improved access to financial markets with help from a $250 million loan approved by the World Bank. The loan, the first of a multi-year private sector development program, will help establish a market-based financial system and increase the supply of long-term capital for private investment and domestic savings.

The project will strengthen ongoing reforms in several areas, including treasury financing and lending rates. The program will help boost capital markets, which will support the expansion of private financing of infrastructure. The funds also will support the privatization of three remaining large state-owned banks and the establishment of an inter-bank foreign exchange market. For more information, contact Jeannie Yamine at (202) 473-2318, fax (202) 477-7978.

Press Advisories

Beijing Conference Press Briefing

A media briefing on World Bank preparations for the *Fourth International Conference on Women* in Beijing will be held on Wednesday, August 23 at 10:30 a.m. in the J Building Auditorium, Room J-1050 at 701 18th Street, NW (corner of Pennsylvania Avenue).

Gender experts Minh Chau Nguyen, the Bank's manager of Gender Analysis and Policy; Kei Kawabata, senior economist in Gender Analysis and Policy; and Ishrat Husain, director of the Poverty and Social Policy Department, will discuss two new publications and an interactive, multi-media CD-Rom program prepared for the Beijing conference.

For information, contact Klas Bergman at (202) 473-3798, Rebeca Robboy (202) 473-0699, Merrell Tuck (202) 473-9516 or Marie-Christine Bonzom (broadcast) (202) 473-0697.

Conference on Environmentally Sustainable Development

The Third Annual World Bank Conference on Effective Financing of Environmentally Sustainable Development will be held in Washington, DC, on October 4-6, 1995. The conference will explore, at a time of severe fiscal constraints, how new and innovative financial instruments can best be used to promote environmentally sustainable development. The conference will bring together more than 130 experts, including government ministers, representatives of NGOs and international organizations, eminent scientists, scholars and business leaders.

To register, please call (202) 473-9361, fax (202) 522-3244, email ASECK@worldbank.org. Journalists, please contact Andrew Yarrow at (202) 473-9793 or Sarwat Hussain at (202) 473-5690.

WORLD BANK NEWS

Steve Hendrix, Editor
Michael Prest, Editorial Advisor
Cynthia Delgadillo, Production Assistant

World Bank News is published in English, French and German by the World Bank's External Affairs Department, Washington, D.C. 20433, U.S.A. Maps appearing in World Bank News are for the convenience of readers. The denominations used and the boundaries shown do not imply any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries. (ISSN 0254 6353) Telephone: (202) 473-9561.

The World Bank Group is the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA). IBRD is the main lending arm of the World Bank. IDA is the World Bank affiliate that lends on concessional terms to the poorest countries. IFC finances private sector projects and advises businesses and governments on investment issues. MIGA promotes foreign direct investment through guarantees, policy advice, and promotional services.